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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/495,971

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Sarit Neter

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EXAMINER

HENN, TIMOTHY J

ART UNIT

PAPER NUMBER

2622

NOTIFICATION DATE

DELIVERY MODE

12/01/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptomail@stofoco.com

Office Action Summary	Application No. 09/495,971	Applicant(s) NETER, SARIT	
	Examiner TIMOTHY J. HENN	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 41-70 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 57-70 is/are allowed.
- 7) ☒ Claim(s) 41-46 and 49-54 is/are rejected.
- 8) ☒ Claim(s) 47, 48, 55 and 56 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 02 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.
2. While applicant argues that Hashimoto does not disclose "multiple sensors in a column of sensors are included in a plurality of subsets of the sensors", the examiner disagrees. Since the claims as written do not define how the subsets are related, two subsets which do no overlap (e.g. n1H and n2H in Figure 1) or two subsets which overlap in the row direction (e.g. n1H and m1H) as taught by Hashimoto appears to read on this limitation since all of these subsets include multiple sensors in the column direction (e.g. g1, g2, g3 and g4 are in a single column and included in multiple subsets). Therefore, Hashimoto appears to read on the limitations as claimed. However, if the claims were amended to recite that multiple sensors in a single column must overlap between two different subsets (e.g. g1 and g2 together must appear in two different subsets), Hashimoto would not read on the claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 41-46 and 49-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashimoto (US 4,768,085).

[claim 41]

5. Regarding claim 41, Hashimoto discloses a device comprising: an array of sensors configured in a row-column format to capture image data through a color filter having different color filter components (Figure 1); an array controller configured to select subsets of the sensors for readout (Figure 1, Item 2a1; c. 4, ll. 5-51), wherein multiple sensors in a column of sensors are included in a plurality of subsets of the sensors (e.g. g1 and g2 are included in n1H while g3 and g4 are included in n2H, note that the claim as written does not specify how the subsets relate to each other); and a compensation system configured to compensate the image data readout from the subsets of the sensors based on the color filter components associated with the sensors in the subsets of the sensors (Figure 3, Items 3-5; note each color has its own associated amplifier).

[claim 42]

6. Regarding claim 42, Hashimoto discloses a compensation system further comprising: first, second and third amplifiers configured to compensate image data readout from sensors corresponding to first, second and third color components of the color filter respectively (Figure 3, Items 3-5, R, B and G).

[claim 43]

7. Regarding claim 43, Hashimoto discloses a summing amplifier configured to average the image data readout from sensors corresponding to the third color filter

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component (Figure 2, Item 2a3), wherein the third amplifier is configured to compensate the image data averaged by the summing amplifier (Figure 3, Item 3).

[claim 44]

8. Regarding claim 44, Hashimoto discloses an array controller configured to direct readout of the image data from a first subset of the sensors sequentially with a readout of a second subset of the sensors (Figure 2, n1H, n2H, and m1H, m2H etc, note that the readout occurs sequentially).

[claim 45]

9. Regarding claim 45, Hashimoto discloses readout of image data of the first and second subsets of sensors in parallel (c. 4, ll. 5-51).

[claim 46]

10. Regarding claim 46, Hashimoto disclose first and second subsets which at least partially overlap (e.g. n1H and m1H both include row l2).

[claims 49-54]

11. Claims 49-54 are method claims corresponding to apparatus claims 41-46.

Therefore claims 49-54 are analyzed and rejected as previously discussed with respect to claims 41-46.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent

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and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 41-46 and 49-54 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 42 of copending Application No. 11/113,438 in view of Hashimoto (US 4,768,085).

This is a provisional obviousness-type double patenting rejection.

[claim 41]

Regarding claim 41, '438 claims an addressing system for a pixel sensor which selects overlapping subsets. However, '438 does not explicitly claim an array of sensors or a compensation system. Hashimoto discloses an array of sensors (Figure 1) and a compensation system (Figure 3). It would be obvious to use the addressing system of '438 with the array of sensors and compensation system of Hashimoto so that pixel signals could be readout in increased resolution and compensated to produce and corrected readout.

[claims 42-46]

Claims 42-46 are further taught by the system of Hashimoto (see the rejections above).

[claims 49-54]

Claims 49-54 are method claims corresponding to apparatus claims 41-46. Claims 49-54 are analyzed and rejected as previously discussed with respect to claims 41-46.

Allowable Subject Matter

14. Claims 47, 48, 55 and 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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15. Claims 57-70 are allowed.

[claims 57-70]

16. While the use of masked pixels is known in the prior art for fixed pattern noise reduction, the prior art does not teach or suggest including these pixels in subsets with the imaging pixels as claimed.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY J. HENN whose telephone number is (571)272-7310. The examiner can normally be reached on M-F 11-7.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TIMOTHY J HENN/
Primary Examiner, Art Unit 2622